

acteristics: In twenty-four to forty-eight hours "a large raised, reddish, indurated papule, usually five to ten millimeters in diameter" appears. It may be surrounded by a "diffuse zone of redness and show marked telangiectasis." During the following three or four days the dimensions and degree of induration slowly increase. Then the process gradually subsides, disappearing usually in about a week. In some cases on the fourth or fifth day the papule becomes edematous and later vesicular, and then pustular, finally terminating in a crust which falls off in a few days without leaving induration or scarring. The intensity of the reaction varies widely in different cases. In a very few instances the injection sites fade away almost completely within three or four days, acting like negative reactions, and then after ten days or longer, give rise to small pustules which gradually subside the same as the pustules just described. Following the injection of luetin in non-syphilitic cases, "a small erythematous area" appears at or around the point of injection in from twenty-four to forty-eight hours. There is no local pain or itching. The process recedes in forty-eight hours and leaves no induration. In some cases there may be a small papule after twenty-four to forty-eight hours which soon begins to subside within seventy-two hours, leaving no induration.

In most of the positive cases a slight rise of temperature occurred and lasted a day, but there were no marked constitutional symptoms excepting "in three tertiary cases and one hereditary case when general malaise, loss of appetite and diarrhea were noted." The results in parasyphilitic cases were unsatisfactory, but Noguchi states that further work will be attempted with more active preparations of "luetin." He will have something to report in this regard in a later paper.

The reaction was positive in 100% of the manifest tertiary cases, in 94% of the latent tertiary and in 96% of the hereditary cases. During the primary and secondary stages in the human cases the reaction often failed and when present, it was of mild degree. In those cases in which energetic treatment was carried out (particularly with salvarsan) the reaction was apt to be severe. Rabbits which had been given repeated inoculations of either living or killed pallida showed "well marked inflammatory reactions." The test failed in rabbits showing active syphilitic orchitis and also in those in which the condition had been cured by the administration of salvarsan. Also normal rabbits gave no reaction. Noguchi observes that "it appears probable that the Wassermann reaction is more constant in the primary and secondary, and the cutaneous reaction in the tertiary and latent forms of syphilis. Moreover it appears that the Wassermann reaction is more directly and immediately affected by antisyphilitic treatment than is the cutaneous reaction."

This most important work now being done by Noguchi at the Rockefeller Institute seems destined to produce something of practical value in the diagnosis of syphilis and his later reports will be awaited with great interest.

HARRY E. ALDERSON.

TYPHOID VACCINATION.

This subject is moving rapidly to the front and will soon demand more exhaustive clinical investigation than has so far been given. Let it first be noted that typhoid is not only a very prevalent disease, about 500,000 cases occurring yearly in the United States, but a very fatal disease running at a mortality of 12% to 15% and causing about 35,000 deaths annually. If, therefore, the number of infections can be materially reduced or the mortality of the infected lowered medical science will score another triumph in the relief of human suffering. The practice of vaccination with sterile cultures of the bacillus typhosus has already definitely achieved the first, and promises later to effect the latter. The prophylactic success of these injections is no longer open to any doubt. It has been pretty well recognized for some time that the incidence of typhoid among the protected troops of Great Britain and Germany had been reduced to half the usual average. In the case of the British army the figures covering a period of five years show a reduction of infection amounting to two-thirds (15 per thousand to 5) and a lowering of mortality to less than one-fourth (3 per thousand to 0.63). This country was the last to adopt the practice but bids fair to show the most brilliant results in its application. That of 60,000 soldiers inoculated there should (in a period of 3 years) occur but 12 infections and not one death is little short of a marvel. Nor can it be asserted that this is due to an abnormal absence of opportunities for contracting the disease. Nothing can be more definite in this respect than the information given by Captain J. M. Phalen, M. D., in a paper before the Philadelphia Pediatric Society (vide *J. A. M. A.*, Vol. LVM, No. 1), showing that during the period that 4,000 men were in camp at Galveston, Texas, no case of vaccinated typhoid occurred among them, while the unprotected citizens ran up a score of 192 cases, yet both soldiers and citizens partook of the same food, milk and water. Facts such as these place the prophylactic value of antityphoid vaccination beyond dispute. Its utility as a method of treatment is not at first glance so theoretically obvious, but a little consideration will show that it too can be justified. Typhoid is a blood as well as a tissue infection and its general symptoms are due to the endotoxins liberated from the dead bacilli. It might well be objected that to add more toxin-yielding bacilli to an already intoxicated organism could only increase the severity of the symptoms and the danger to life. Doubtless there is a temporary increase of circulating toxin but this is neutralized by the great advantage of an early and increased production of antibodies and arrest of the disease. It is to be noted that the inoculated matter while stimulating the production of all the antibodies, antitoxins, agglutinins, opsonins and bactericidins and being by them neutralized probably fails to fix any of the bactericidins (the inoculated bacilli being already dead) and thus directly leads to the dominance of that particular antibody chiefly responsible for the arrest of the disease. With this justification for the

theory there is the commencement of a gratifying number of reports of successful practice. Dr. Phalen states that probably not more than 400 cases have so far been reported. The number is too small to afford a basis for positive opinion, especially as the dosage has been very irregular and seemingly generally too small. The best results are with large injections, one to two billion bacilli. But treatment apart, the vital fact remains that had the civil population the protection now given the army, 30,000 lives a year would be saved, and an enormous amount of sickness and subsequent ill health avoided. It is our duty to urge prophylactic vaccination in every typhoid afflicted community and institute a scientific investigation of its curative effects in every large institution.

H, D'ARCY POWER.

CONTRACT PRACTICE.

East, west, south and north, throughout the country, the question of contract practice is being discussed by physician and layman; the question of liability for industrial accident by employer and employee. In these days of social unrest it is quite obvious that socialism is making progress. The laboring classes and the ever-present poverty-stricken are clamoring louder and louder for legislation that will better their social status. Reform movements, insurgents—call them what you will—gain in strength and adherents in direct proportion to their attacks upon the capitalistic class, and to their promises to the proletariat. Our state legislature has recently been asked to deal with an Employers' Liability bill. There is no question but that very many excellent principles are embodied therein. We are just as positive in our belief that there are many features that will prove rather bad when it comes to actual practice.

One of our county societies has a committee on contract practice, or rather as it is called, a "Hospital Commission." In a preliminary report (after over a year's work) it has classified the hospitals into "Acceptable," "Provisionally Acceptable" and "Not Acceptable" ones. This is its first step in a campaign which, it hopes, will result in the correction of the hospital and contract practice abuses. In another county, where the profession is well united, a newly-organized fraternal organization found no physician willing to submit to its terms.

There is no question in our mind but that hospital associations are here to stay, and that contract practice will in the future show increase rather than decrease. But if these incorporations, organized by laymen, frequently unscrupulous "promoters," be allowed to spring up and dictate terms to the medical profession, no end of evil will ensue. And the very men, now so eager to serve these corporations, will necessarily be the greatest sufferers.

We see absolutely no objection to hospital associations if they reject for membership all individuals whose incomes are such as to enable them to well afford the services of a private physician,

provided that the hospital physicians are paid a fair wage. We see no objection to an association that is formed for benevolent purposes, and furnishes board, shelter, drugs, general care and nursing when necessary, but leaves it to the patient to settle the question of fee with the association's physician or any other physician he may choose to employ.

In discussing the above subjects with our fellows, too often do we hear, "Oh, well, what can we do about it? we cannot change existing conditions." In answer to those who feel the same way, we would state that agitation on these topics has just begun, and it behooves the profession to be alive to its interests and to study seriously these great social questions. In England, the national insurance bill has passed both houses of Parliament by a large majority, in spite of its unpopularity with certain classes, notably the medical profession. The British Medical Association fears that it may prove not only injurious to the profession, but also detrimental to the practice of medicine, and though it formulated six cardinal principles, which it desired respected by the bill, only two of them were incorporated in the bill, but it is probable that the others will be given practical recognition. (These will be found in the *J. A. M. A.*, p. 2090, Dec. 23, 1911; also p. 2094; better still in the supplement to the *Brit. Med. Jour.*, Dec. 9, 1911).

In Germany where the national insurance practices have been in effect since 1882, physicians have been complaining more and more of the hardships thereby imposed upon them, and have pointed out the evils. Curiously enough, however, we are now informed by the retired President of the Senate in the Imperial Insurance Office of Germany, that after a service of over twenty years, he finds that the system of compensating workmen for accidents, instead of replacing pauperism and charity, is itself merely pauperism under another form, and that it has become a hotbed of fraud, and therefore a spreader of demoralizing practices and ways of thought. Coming from this source nobody can accuse the faultfinder of being prejudiced. His report (published in English by "The Workmen's Compensation Service and Information Bureau" of New York City) is well worth studying, and certainly should serve as a warning to those who believed that the working of Germany's system was well nigh faultless.

RENÉ BINE.

MEDICAL DEFENSE.

The following circular letter was prepared by the attorney for the State Society in July, 1909, and a copy was sent to every member of the Society. It was published at least twice in the *JOURNAL*, but it seems wise to publish it again. To the statements made therein it is only necessary to add that the plan has proved to be a complete success. It is no longer an experiment but an every-day working part of the machinery of the State Society. Do not waste time wondering "if